## **ABSTRACT**

5

10

Server software running on a cable modem uses data samples being collected in a register by storing the samples into a buffer until the buffer is full of samples. Then, the server causes the stored samples to be combined and placed into an IP packet. The packet is sent in response to a request by personnel at a location remote from the cable modem. The packet is received at the remote location, and the data contained therein is displayed for use by the personnel in diagnosing a potential problem in the IP network. The display may be a constellation plot.

The technician's remote device wherefrom the request was placed may include a table, having a modem identifier field, the performance data being associated with the identifier corresponding to the modem whence the data came. The table may also contain a node and branch identifier for each corresponding modem.